

After years of genetic tinkering by scientists, almost any shape, size, or type of fruit tree is available. There are even novelty trees that have been grafted to produce four different kinds of fruits on one tree. Others combine the qualities of two fruits to offer the best of two worlds. The plumcot, for example, is a mix of plum and apricot.

To select a fruit tree, first match the fruit you want to grow with the climate in your area. Growing a tender tree in an area buffeted by cruel winters will only lead to disappointment. Most varieties of peaches, for example, suffer bud damage when temperatures in the early spring dip low. On the other hand, most apples need a period of cold for their growth cycle to continue.

Another important consideration is the amount of space available. If a vast expanse of fertile ground is not at hand, don't despair. The wide selection of dwarf varieties is just as rewarding in a fraction of the space. And harvests are plentiful, too. A single dwarf no higher than eight to ten feet can yield up to six bushels of fruit. If you prefer a happy medium between the dwarfs and the space-consuming standard trees, which grow to heights of 15 feet or more, you can always plant a semi-dwarf type. At an average height of about 13 feet, semi-dwarfs offer a perfect middle-size tree. In short, somewhere in the pages of a fruit tree catalogue is the ideal tree for your backyard.

Because the product of growing fruit trees is the fruit, care should be taken to ensure proper pollination. Some fruits, such as nearly all varieties of grapes, are self-fruitful, which means blossoms can be fertilized by pollen from blossoms on the same plant. But other types, such as apples, pears, most plums, and some peaches, need a little help from neighboring varieties. Blueberries, although self-fruitful, generally do better when other varieties are nearby. Chances are good there are enough plantings in your area to pollinate the trees. But the best bet is to have more than a single variety within 100 feet, so bees can easily travel between. Or set a bucket of blossom-filled branches of one variety beneath a tree of another variety. Most catalogues and garden center personnel can tell you which varieties of each kind of fruit are self-fruitful and which two (or three) varieties make the best partners. If bees are scarce, the harvest isn't doomed. With miniature trees, take matters into your own hands and pollinate the blossoms yourself by shaking blossoms of one variety over those of another.

The key to growing fruit successfully depends on the right blend of conditions, together with the abiding care of the home gardener. If bugs and disease are nipped before they become a plague and fruits are insulated from the ravages of wind, cold temperature, and marauding birds, your orchard will be a thing of beauty. Before investing in your favorite fruits, keep these additional requirements in mind:

Sun

Fruit, whether it ripens on a branch or bramble, needs plenty of sun. When plotting your orchard, be sure to place trees where there is unobstructed sun all day.

Soil

Almost all the fruits do best in a slightly acid soil, somewhere between 5.5 and 6.5 in pH reaction. The exception is blueberries, which prefer a soil of even greater acidity (pH between

4.0 and 5.0). Location has a lot to do with just how acid your soil is, because rainfall naturally percolating through the soil tends to make it acid. If in doubt about your soil, send a sample to the nearest county extension office or soil testing laboratory for help with analysis, or try your hand at home analysis by purchasing a small soil testing kit, available at most garden supply centers. If soil is alkaline, it can be brought to the proper level by adding powdered sulfur. Be sure to follow manufacturer's directions carefully; applying too much can be deadly to plants.

Drainage

Whatever fruit you plan to grow, adequate drainage is a top prerequisite. When scouting the backyard for a suitable site, avoid low-lying areas that collect water or are slow to drain in the spring. If choices are limited, however, correct poor drainage by installing drainage tile or digging a small ditch for runoff.